

**EFFICACY OF AN INTERNATIONAL STUDENT ORIENTATION COURSE**

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By

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**EFFICACY OF AN INTERNATIONAL STUDENT ORIENTATION COURSE**

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## SUMMARY

Culture shock is a prominent phenomenon for international students when beginning college. The term ‘culture shock’ is defined as a negative emotional reaction caused by the overwhelming and confusing flood of unfamiliar behavior in a new culture. Culture shock induces stress through frustration with culture norms, and experiencing culture shock causes many struggles including language difficulties, homesickness, and social isolation. Culture shock is salient to undergrads because they are young and seemingly on their own immediately after they move. Moreover, American colleges and universities have dramatically increased their numbers of international students, especially students from culturally different eastern countries. These particular students have shown noticeable levels of culture shock during their first semester of college.

This study was designed to determine the efficacy of a three-week international student orientation course for first-year international students. The first session introduced students to possible differences they might experience in the American culture and the social norms put in place. The second session introduced students to the wide variety of resources on and off campus. This was an informational session to help compensate for the shortened FASET orientation that international students receive. The third session introduced students to different role-playing scenarios, including negotiating a friendship, working in groups, and meeting a professor for office hours.

Measurements for the efficacy included mental health surveys over seven weeks, pre- and post-course questions on culture shock, and course evaluations. Due to low participation, the quantitative analysis returned statistically non-significant results. Regardless, the study showed promise in future research.

## Efficacy of an International Student Orientation Course

Many students attending high-pressure universities experience stressful transitions and psychological difficulties early in their college careers. Studies have shown that, of all college students, most psychological problems emerge, and the highest levels of distress are reported during their first year (Geisner, Mallett, & Kilmer, 2012). Coupled with the struggles of adapting to the expectations of a college student, culture shock simultaneously affects the first-year international students who have to worry about adjusting to a new culture. Culture shock is the standard process of adaptation to cultural stress, and can involve symptoms such as irritability, anxiety, and a longing for a more predictable environment (Church, 1982). In other words, culture shock is “precipitated by the anxiety that results from losing all our familiar signs and symbols of social intercourse” (Oberg, 1960).

Thousands of colleges and universities in all fifty U.S. states desire and benefit from international students because they contribute to the diversity and internationalization of the classrooms, campuses, and communities and bring value by influencing academic prestige, cultural exchange, and financial revenue (Wu, Garza, & Guzman, 2015). Colleges therefore need to recruit and retain international students. Because of the initial culture shock, a few orientation programs for these students have been implemented in order to help said international students with their first few years of college (Mckinlay & Pattison, 1996; Selby & Woods, 1966). The British Council Code of Practice even suggests such orientation courses for international students. One recorded example of this is at Loughborough University where a three-week pre-sessional orientation course consisted of a mixture of language support, study skills, and



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information to life in the United Kingdom, including practical matters such as “opening a bank account and shopping in a supermarket” (Mckinlay & Pattison, 1996).

These orientation programs place less emphasis on study habits and more on social interactions and practical skills for becoming independent. Selby & Woods (1966) concluded from their data that non-native students at a high-pressure university find themselves preoccupied with academic problems to the point where social activities of a leisurely kind are excluded. In fact, they performed better academically when the work was independent from other students. However, this can hinder the well-being for non-native students, especially in American high-pressure and engineer-focused universities, where there is more of an emphasis on interactive and group-based courses (Michael, 2004). Thus, due to isolation, an international student might not fare as well as domestic students in America’s current learning environment.

Culture shock for international students is caused by at least four cross-cultural differences: relational mobility, time orientation, individualism, and classroom cultures. Relational mobility is “a socioecological variable that represents how much freedom and opportunity a society affords individuals to choose and dispose of interpersonal relationships based on personal preference” (Thomson et al., 2018). America has one of the highest levels of relational mobility, meaning people have more freedom to form new relationships and dispose of old ones. However, according to *College Factual*, the top three most popular non-native nationalities at Georgia Tech are Chinese, Indian and South Korean (Georgia Institute of Technology: Main Campus International Student Report, 2019). While the first two were not rated in Thomson’s study, they are surrounded by countries that were rated as having low levels of relational mobility,

including South Korea. This means that, generally, students from countries with low relational mobility were raised in cultures where interpersonal relationships and networks were less flexible, and formed relationships based on circumstance rather than active choice. For example, it is not uncommon in countries with low relational mobility to have the same close friends for most of one's life. In contrast, Americans who have high relational mobility tend to find more opportunities to select who they interact with - they're more likely to select and be selected by others similar to them (Schug, Yuki, Horikawa, & Takemura, 2009). This can make it harder for international students to initiate friendships with native students due to initial perceived differences. The differences in relational mobility correlate to differences in cultural variables, such as individualism, cultural tightness, cultural self-construals, and interpersonal outcomes such as self-disclosure, intimacy, and trust (Thomson et al., 2018). These factors can play a significant role in one's psychological well-being when going through a transition like moving into a new culture.

Individualism is a social theory that prioritizes the freedom for the individual over the collective. If one were to be raised in an individualistic society, like North America or Western Europe, they were likely raised to be autonomous and independent while prioritizing your personal goals over others. If one were to be raised in a collectivistic society, such as Asia, Africa and South America, they were likely raised to prioritize the groups goals and behave in more of a communal way. People with a collectivistic nature tend to be shy when they enter into new groups; people with an individualistic nature are more comfortable entering new groups and dealing with others in more superficial ways, such as a fraternity social (Triandis, 1995). Additionally, helping a classmate or group

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member on an assignment in India is seen more as a duty, whereas Americans view it as a matter of choice (Miller, 1997). During communication, those from individualistic cultures tend to focus merely on the content, that is, what is said. People from collectivistic cultures spend more focus on context, or, how it is said. Due to the inescapable amount of colleague interactions an international student goes through, these differences can overwhelm them if their home culture is very collectivistic.

Time orientation is the manner in which a person or culture views and values time. Americans treat time as linear and expensive. Just like money, you can spend it, save it, budget it, and waste it; it is treated as a precious, and even scarce, commodity. It flows fast and the ones that can flow fast with it are usually rewarded with a generous hourly wage in America. In other, more collectivistic, countries there is a much more relaxed and slow-paced attitude toward time. While appointments, meeting times, or dinner parties in some countries are flexible with arrival times, in America, it can be seen as disrespectful to “waste” others’ time if you show up to something late and do not have a valid excuse. A miscommunication like this could easily happen as an international student, leaving the student confused as to why people are upset with them.

Classroom culture is the method used to exchange information and knowledge in an educational atmosphere, including types of dialogue between professors and students, seating arrangements, and learning activities. While educational settings can vary over all the world, American classrooms tend to be on the forefront of transitioning out of the traditional style lecture – that is, where all desks face the front, the professor comes in and lectures, no questions are asked, and the professor leaves until the next lecture. At Georgia Tech and most other schools in America, the student-professor relationship is

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more of a two-way street. Students are encouraged to ask question during lecture and the professors hold mandated office hours for the students to come get help. In the smaller, upper-level, classes, students will even spend the whole class-time working on course material with other students. This newer type of classroom is called Problem Based Learning (PBL). Asking for more engagement and dialogue from the students produces more success in learning the materials and most courses now include a participation as part of the final grade. International students who have not experienced this learning style yet might find it uncomfortable to ask questions in class or go to office hours, but it is important for them to know that the professors appreciate it when they do.

Other sets of challenges for international students are the practicalities of daily life. With family members and support so far away, these students have to figure out a new city and culture on their own. They might not know that American college campuses are structured in a way that most every resource can be found through the college – this includes healthcare, food, counseling, transportation, recreation, etc. It is important for students to know so they can use these resources when needed. Many students also need to learn where off-campus resources are, like grocery stores and supermarkets. As a first-year international student, it can be very overwhelming trying to learn all of this information about a new school and city without some friends or family close by.

Given the cultural differences and practical challenges, we developed a first-year international student cultural orientation course to help alleviate some of the students' struggles. I begin with a literature review to study what causes culture shock in college students and how to help cope with it, past culture orientation attempts and successes, and what could be done better. Then I describe the current study – how the course was

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conducted, and methods used to analyze the efficacy. I hypothesized that the experimental group who took the course would show significantly better signs of psychological well-being than the control group who had not taken the course. I also hypothesized that the subjects would take information learned from the course and use it to in some way to better their life as an international student.

### **Literature Review**

The term ‘culture shock’ is a fairly new term accredited to Oberg for defining it as an “emotional reaction caused by an inability to understand, control or predict another person's [behavior]” (1960). The concept of culture shock has been transformed into induced stress caused by a lack of social skills and knowledge on how to deal with cultural norms and conflicts (Zhou, Jindal-Snape, Topping, & Todman, 2008). Many researchers have found a strong presence of culture shock on college campuses in the United States. Wu et. al. explained the dramatic increase in international students coming to America for higher education, many of which from Asian backgrounds such as China, India, South Korea, and Taiwan (Wu, Garza, & Guzman, 2015). Additionally, Asian students reported significantly higher anxiety levels ,which indicate culture shock, in American higher education (Fritz, Chin, & DeMarinis, 2008). With this happening, it makes sense that studies have shown that, in America, international students have more difficulty than domestic students in coping with a new academic and social environment (Barker, Child, Gallois, Jones, & Callan, 1991; Bochner, 2013; Cox, 1988; Klineberg & Hull IV, 1979).

Reasons for these difficulties can vary. For example, Klineberg and Hull (1979) conducted a study of international students at foreign universities in eleven countries and

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identified problems such as language difficulties and homesickness. Kim addressed cultural differences between international students and their academic advisors generating conflict in constructing an advising relationship. This caused an increase in dissatisfaction with advising for the student (2007). Other studies found additional difficulties such as social isolation, and gaining cultural knowledge and skills required to be adjusted to a new college environment (Heggins & Jackson, 2003; Johnson & Sandhu, 2007; Khawaja & Helen, 2011).

Once the problem of culture shock for international students was established, researchers began trying to find methods to overcome or, at least, lessen the struggle. The first question was to whom the burden of this problem fell upon, the international students or the institution? Many have argued that the burden falls on the institution. For instance, Baba & Megumi asserted that helping international students reduce their stressors of adjusting to a new environment cannot be overemphasized because the research has shown that international students struggle significantly more to form genuine friendships with host students and to fully integrate into the college's environment (2014). American colleges also want a high presence of international students because they bring both academic prestige and financial benefits (Altbach & Knight, 2007). Thus, increasing the satisfaction of international students through university resources could increase their retention rate and be more advantageous to the institution (Wu et al., 2015b).

One goal to help reduce culture shock that has been confirmed again and again is the need for a social network (i.e. making friends). Establishing more friendships in the host country has shown to reduce stress (Yeh & Inose, 2003), help maintain social and

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psychological well-being (Hayes & Lin, 1994), bring more satisfaction, a feeling of connectedness, less homesickness (Hendrickson, Rosen, & Aune, 2011), less perceived racial discrimination, and less posttraumatic stress symptoms (Wei, Wang, Heppner, & Du, 2012). Additionally, Yakunina et al. found that those who seek out campus help-resources actively reduce the negative affect of culture shock (2013). One study was performed trying to use a culture orientation course to reach these goals. The course was given to grad students at Loughborough University and consisted of three one-hour lectures on the host country's culture. The results of this study concluded that the subjects had higher levels of homesickness and distress from taking the course. One possible cause of this was that the course was optional, and the control group consisted of the students that decided not to take the course. Thus, the control group might have not felt the need for the course in the first place. Secondly, the research did not specify what the course was like. It is possible that the course was not designed well enough for the intended students by failing to account for what is actually causing the culture shock, such as an insufficient orientation, lack of cultural understanding, and social isolation. This calls for a more structured project with comparable experimental and control groups.

One important note about Georgia Tech's international students is that these individuals have a dramatically shorter freshman orientation, where the main objective is to register for classes. Thus, a course designed to give the new international students a proper orientation of campus resources, followed by active learning experiences activities to learn how to negotiate social relationships in a new culture is possibly a better route for a successful orientation course that improves their well-being.

### **Current Study**

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With this knowledge, it's important to teach international students (especially those from East Asian countries) how to adapt to the American ways of social interactions. By creating a short orientation course focused on adapting to team-based learning and other general customs in American colleges, we anticipated that international students would increase in cultural competence, experience less culture shock, and that the course would potentially contribute more to the college as a whole by increasing the retention rate of these students, which happens to be lower than that of the average Georgia Tech student (Tech, 2013). To verify this outcome, we planned an international orientation course involving three one-hour sessions over a period of three weeks. The course materials cover campus information, the American culture and its constructs, and social norms in American classrooms and group work.

The first session covered the general differences between American culture and other cultures with the goal of the students obtaining an initial idea of how different the American culture is from their home culture. This includes going over the concept of relational mobility — students filled out a questionnaire that indicated where on the scale of relational mobility they might currently be and then were explained how many Americans would answer the questions. Students also learned about how it is common for Americans to view time as a commodity, specifically in that it can be disrespectful to waste someone's time by being late to meetings, be indirect during conversation, or take too long to do a job. Other topics included the value of American individualism and uniqueness, particularly Americans being taught as children to grow up to be strong, unique and independent individuals. The last part of the session covered differences in American classrooms. There is much more interaction between students and other



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students as well as students and professors in the American classroom. To be more successful, students are encouraged to collaborate (when allowed) and ask questions.

The second session covered on and off campus resources, including health services, transportation, academic services, and extracurricular activities. To begin the session, , we described how many American universities are now “multiversities” (Kerr 2001). Universities in America are run more like businesses – they must satisfy the needs of the students, professors, alumni, and community around them. Because of this, an abundant amount of resources is provided to students including student transportation, clubs, centers for academic success, health services, many study resources, recreational centers, etc. Students were encouraged to use these resources to become more involved on campus. The second half of the session focused on resources off-campus including public transportation, supermarkets, and attractions.

The third session covered the process of one understanding American communication styles, overcoming feelings of anxiety, and building relationships in America. This session was more interactive, where students could practice forming relationship with other colleagues, visit professors’ office hours, and explore new opportunities. Toward the end of the session, one or two international students with more seniority and who had gone through culture shock in the past were brought in for a quick Q&A session. Finally, the students spent the last five minutes completing a course evaluation.

For analyzing the efficacy of the course, we used a waitlist control design group. Students from one program took the course toward the beginning of the semester, while students from another program were waitlisted to take the course closer to the end of the

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semester. This allowed for enough time between the sessions to gather relevant data from both groups where the group that took the course first could be treated at the experimental group while the other group could be the control.

To measure the impact of the course, I gave the students the same survey at weeks three, four, six, and eight after the course began, consisting of a combination of credible self-assessments from the Mental Health Continuum-Short Form and Beck's Depression Inventory. This procedure enabled me to adequately model the rate of growth in wellbeing and decline in depression, given sufficient participation. I hypothesized that the students who participated in the first course would score significantly better than the students that took the course after the surveys were completed. More specifically, students who took the first international student orientation course are hypothesized to score higher on questions from the Mental Health Continuum-Short Form and lower on the Beck's Depression Inventory, both indicating healthier mental and psychological well-being.

Participation was much lower than expected for the Biomedical Engineering (BME) sessions, therefore more qualitative questions were added to the Mechanical Engineering (ME) session to allow for more data collection. The students were asked two questions at the beginning of the first session: what aspects of culture shock they might currently be experiencing, and how they are coping with them. Then, the same two questions were asked at the end of the third session along with one more question pertaining to what impact the course had on helping them with the culture shock.

### **Method**

We designed a three-session orientation course, with each session lasting

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approximately one hour. Because this course would be voluntary with only lunch as compensation, we believed this amount of time was sufficient for addressing the material needed to help with culture shock, while also not asking for too much time from the volunteers during their first semester at college. The sessions were scheduled for a morning period when no regular classes were scheduled.

### **Participants**

For our experimental group, we chose to acquire participants from the BME department. ME students were chosen as a control group due to the similarity in student interests and program courses. The control group was offered a chance to take the course later in the semester after data was acquired.

After gaining IRB approval, email addresses of first-year BME undergraduate international students were obtained from the BME advising office. One invitation email and two reminders were sent to all of these students to the first session through Qualtrics. The first invitation was sent a week before the first session and the two reminders were sent two days and one day before. The email invitation included dates and times of the sessions, which were once a week at the same time and day of the week, a promise of free food, and noted that students could choose to attend the sessions without study participation. Students were requested to enroll through Qualtrics with their names and whether or not they could attend all three sessions.

The ME students were emailed an invitation for the second course during the last week of the BME sessions. This was over a month before the second course began, but it was necessary to get control data for the measurements. Students enrolled through the same Qualtrics form. Reminders were sent to the ME students the day before the session.

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Table 1 contains information on the number of students enrolled and how many sessions they attended for each group. The majority of the students that registered for the course did not attend any sessions.

Table 1. The distribution of enrollment and attendance for the orientation courses.

Session	Students enrolled	Attended 3 sessions	Attended 2 sessions	Attended 1 session	Attended 0 sessions
BME	14	5	2	3	4
ME	28	2	2	4	20
Total	42	7	4	7	24

### Procedure

Each session had different objectives that were decided upon to be the most helpful in coping with culture shock. The session goals can be found in the introduction of this thesis. In the control group, students were given a form at the beginning of the first session with two questions regarding their current struggles with culture shock and how they were coping with them. This was added to the control group, as noted earlier, to acquire more data on the effects of the course. For each session, the students were given a student workbook to follow along with the lecture, stay engaged, and write down personal reflections on different topics covered. The student workbooks and instructor manual can be found through this link: <https://osf.io/59cr6>. At the end of the last session, the students filled out an evaluation designed to assist in improving the course for the future.

**Measures.** We administered several self-report measures as follows.

***Course Evaluations.*** After the last session of each course, students were given course evaluations with questions pertaining to why they chose to take the course and the number of sessions they attended. Students were asked to evaluate the course on its effectiveness to help them cope with culture transition, specifically learning about cultural differences, Georgia Tech resources, how to build relationships, etc. This last section was measured quantitatively on a 5-point Likert scale.

***Qualtrics surveys.*** Students were also sent the Qualtrics surveys mentioned in the introduction. These surveys were sent at weeks three, four, six, and eight after the first course began and sent to all students that enrolled in the BME or ME student course. The surveys ended before the ME course began.

***Pre- and post-course short answer questions.*** We added some extra questions for the ME students to answer immediately before and after taking the course because we needed more data to determine course efficacy due to lack of Qualtrics survey responses. For the pre-course short answers, students were asked two questions relating to their experience so far as an international student:

- 1) Right now, what aspects of American Culture (if any) are causing you stress, worry, loneliness, or frustration?
- 2) In what ways (if any) are you currently coping with culture shock?

Then, at the end of the third session, the students were asked the same first two questions, along with one more question pertaining to the course itself:

- 3) What impact (if any) did this course have on helping you cope with culture shock?

These answers were measured qualitatively through frequency of key words and the

differences in answers between the pre- and post-evaluation.

**Statistical Analysis.** For the statistical analysis, we planned to run a mixed ANOVA on the Qualtrics survey results and quantitative analysis on the course evaluation forms. We hoped to conduct an inferential analysis to examine whether the experimental group reported better outcomes than the control group. Some data, like the pre- and post-evaluations and short answer questions, were measured more qualitatively.

### **Results**

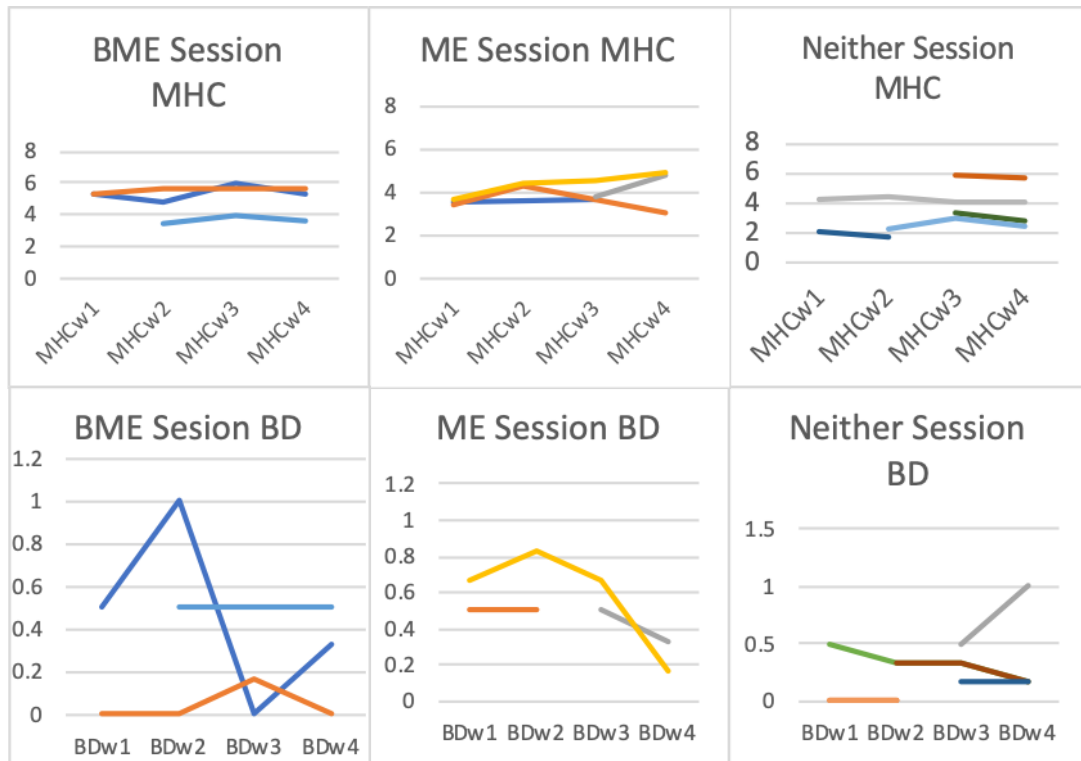
#### **Participation**

We received data from a total of nine students across both groups and excluded the 14 students who did not attend any session. This diminished the statistical power of the study, and therefore deemed our quantitative results to be statistically non-significant.

#### **Quantitative Feedback**

**Qualtrics Surveys.** The Qualtrics surveys that included the Mental Health Continuum-Short Form (MHC) and Beck's Depression Inventory (BD) returned very spotty results. Of the 23 respondents to the survey, five attended at least one session from the first course, four attended at least one from the ME course, and 14 did not attend any sessions. Only two students from each of those three groups completed all four surveys. Among the participants, we found no clear patterns or differences between the three groups other than a slightly better score with students from the experimental group.

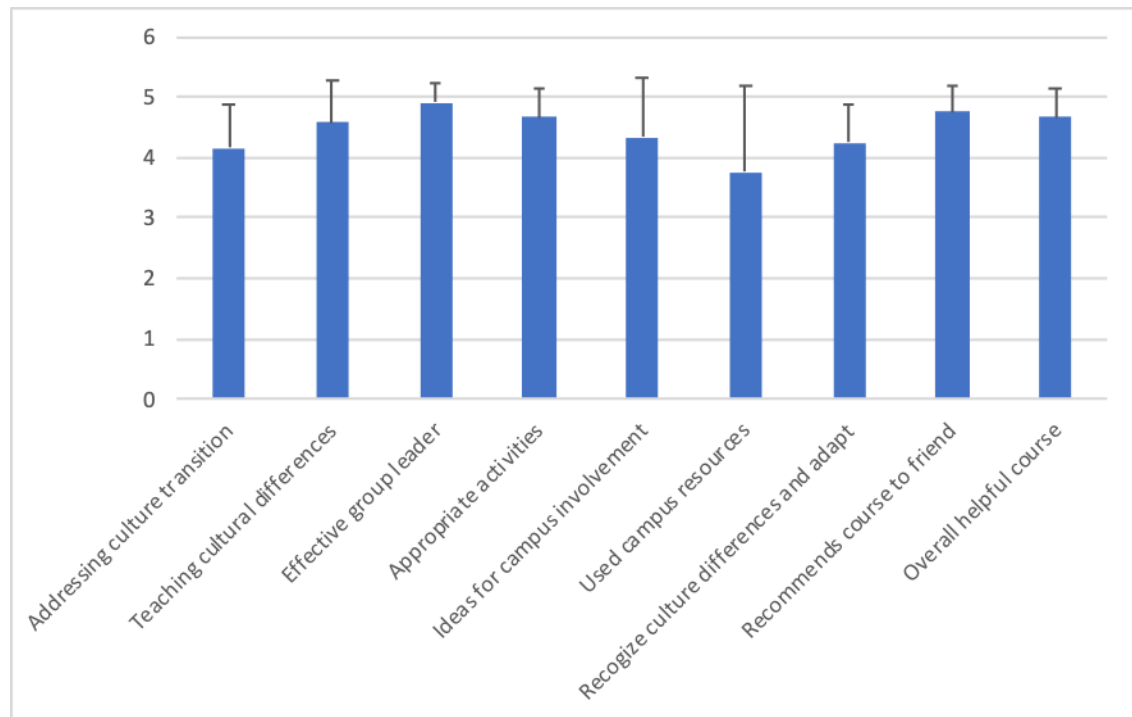
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**Figure 1.** Qualtrics survey results. The Mental Health Continuum (MHC) questions were rated on a scale from 1 to 7, where 7 indicates a fully happy and satisfied life whereas a 1 indicates an overall dissatisfaction with life. Beck's Depression (BD) Inventory questions were rated on a scale of 0-3 where 0 shows no signs of depression and 3 shows severe depression. The students that took the course before the surveys (BME) show slightly better results compared to the other two groups, but there is no statistical significance due to a low number of subjects.

**Course Evaluations.** The quantitative results of the end-of-course evaluations are displayed in Figure 2. Both of the courses' student evaluations supplied promising results. The results were merged into one set due to only negligible differences between the two courses.

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**Figure 2.** International course post-evaluations (BME and ME). This graph shows the average answer values for each question on the post-course evaluation. The first 5 questions pertained to the course topics and the last 4 focused on individual effectiveness of the course goals; 1 = “very false”, 5 = “very true” and N = 12.

### Qualitative Feedback

Regarding the qualitative analysis, key themes were gathered from the answers and their frequency was observed to determine relationships between pre- and post-evaluations.

**Pre-course short answers.** There were seven students who attended the first session of the ME course and answered the pre-course short answer questions.

**Question 1: Right now, what aspects of American Culture (if any) are causing you stress, worry, loneliness, or frustration?** For question 1, three students referenced social interactions, the banking system, living independently, and religion. Examples of answers pertaining to social interactions include: “The fact that I have to proactively ask



to progress my research. In my culture, asking questions is the last method to solve a problem because professors are more busier than me, and have many students to advise ... when I came to the U.S., everyone asks freely and even encouraged. [when asked] ‘Any questions?’, [it] makes me stress because I hardly come up with one, and don't know what to ask.”, “I don’t know how to greet people in the American way, so when I meet someone on the street, I'm kind of nervous.”, and “people always say "how is your day?" and I don’t know how to answer that question.”

Another struggle for two students was the American bank system and how credit cards work. One simply said, “the bank system” while the other explained more about how they might “spend money but be charged a week later, statements on apps/online don’t show true amount left in account.”

Similarly, a general theme was tied to living independently as an adult: “I struggled for the first 3/4 weeks to learn and figure out how to live independently and be responsible as an individual.”, “Public transportation is not so convenient, maybe everyone has their private cars. I walk to nearby market and walk back home. I think it may seem strange if someone walks and carries so many items to an American.” The last theme to appear focused on religion in America: “Most people in America seem to be Christians. I am unable to understand their faith in God and always worried about offending them when talking about it.”

### ***Question 2: In what ways (if any) are you currently coping with culture shock?***

For question 2, the most common themes were focused on social interactions. Three students said they focus on observing social encounters and try to imitate what they see: “Try to imitate the native speakers I observed.”, “Watching YouTube videos about

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culture and meet with people from various countries.” and “Try to use the sentences they used when greeting someone.” Two students also made efforts to make new friends who have been in America longer and can help them settle in: “I am trying to ask more, think more questions. I am also trying to make more friends and talk more.” and “By making friends on campuses who have been here for a while. They have helped me settle in well and adjust nicely.”

Two students did not desire to fit into the new culture and lifestyle. One said they realize the American culture works because they see people are happy in it, but they do not feel the need to imitate the lifestyle of Americans. The other student said they “spend hours watching films/playing games that I would play/watch back home” so they can forget where they are. These were two of the three students that did not come back for rest of the sessions.

**Post-course short answers.** Only four students attended the final session of the ME course. Thus, we only gathered data from four respondents.

***Question 1. Right now, what aspects of American Culture (if any) are causing you stress, worry, loneliness, or frustration?*** For question 1, three of the students said that they have little or no stress or worry about the American culture anymore: “Right now, I feel good about the American Culture.”, “American culture is good, and is more and more similar to culture in China, so it doesn't cause me stress. I do have stress, that I cannot communicate with people in English naturally.”, and “I have struggled with time management and I occasionally put off important things - this problem really amplified in the first 1-5 months here. But that has allowed me to be more proactive and tackle this issue given how Americans value and use time.” Other smaller themes above included

language barriers, time-management.

The last theme that continued to show up was religion from the same student that mentioned it before: “Most people in America seem to be Christians. I am unable to understand their faith in God and always worried about offending them when talking about it.”

***Question 2. In what ways (if any) are you currently coping with culture shock?***

For question 2, the answers almost fully focused on joining groups and being more social: “Try to know more people and join in international student events to get supports.”, “By being more responsible, social and out-going. Basically, by interacting with more people.”, and “Communicate with people.” The other coping mechanism that students have found helpful is to watch American movies, shows and videos, and read books and blog posts.

***Question 3: What impact (if any) did this course have on helping you cope with culture shock?*** For question 3, some students found it helpful for simply becoming aware of the fact that culture shock is common: “I learn that there is a curve of culture shock and I am aware what stage I am going through. This makes me well prepared for how my emotion will change in the future.”

Other students found lessons on how American’s culture differs from their own helpful: “I think this course has helped me understand the American culture better than I did before; particularly through specific characteristics such as individualism and time as a commodity.” and “Although I am good with the culture here, I still learned quite a lot of information about American Culture.”

Lastly, students found the sessions on Georgia Tech resources and Atlanta

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attractions to be of value: “I’m given many useful information about this place, funny places, events held in Atlanta or Georgia Tech. It helps me to get used to living here.”

***More topics to spend time on.*** Additionally, students were asked to answer the following: I would have liked to spend more time on the following topics (circle all that apply; leave blank if satisfied). The results are shown in the table below.

Table 2. Post-course evaluation; topics to spend more time on. n=12

Topic	Extracurricular activities	How to build relationships in America	Ways to cope with culture shock	Cultural Differences in America
# of times circled	7	7	5	4

Topic	Atlanta attractions	Session activities/ exercises	Georgia Tech resources
# of times circled	3	2	1

***Additional comments.*** Other positive comments pertaining to the course evaluations included: “I enjoyed this workshop very much and I hope there will be more workshops like this” and “I think it’s a useful workshop. I would recommend to do more activities interacting with other people of the workshop as we are all in a similar situation.”

### Discussion

This study was aimed at creating an orientation course that improves the overall psychological well-being of international students during their first year at a new college. The need for this is discernable at top-tier engineering schools like Georgia Tech because of the mental health problems that are already present throughout the general student

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population due to the school's high academic rigor. Adding culture shock as another source for depression, stress, anxiety, or frustration can drastically damage an international student's college experience.

Because of the low response rate and low attendance, we could not conduct a robust test of the hypothesis that students in the experimental group would score significantly better on the Qualtrics surveys. However, this does not mean that the course was ineffective in improving the psychological well-being of the students.

The first reason for this is that the answers for the overall effectiveness of the course scored an average of 4.67, where 4 = "true" and 5 = "very true". The students knew that this post-evaluation course was anonymous and therefore had no reason to embellish their answers. Additionally, the ME students suggested the course was effective through their pre- and post-course short answers. Three students pointed out some type of social interaction as their main source of culture shock before the first ME session began. However, by the end of the course, social interactions were barely mentioned as a source of stress, worry, loneliness, or frustration. The only answer that came close to this was one student struggling with language barriers, which takes much more time to overcome. Other culture shock symptoms that were stated before the course, like the new banking system, classroom culture, and grocery shopping, did not seem like much of an issue toward the end of the course either. Students began worrying more about time management and other typical college challenges instead of the cultural differences they may face.

The students also seemed to find it most helpful to participate in social interactions – social events, extracurriculars, general meet-and-greets – to cope with any

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culture shock. This desire was evident in both post-course evaluations, where the top two answers for topics to spend more time on in the course were extracurricular activities and social interactions. This makes sense, as most college students have an innate desire to socialize and build new relationships with other people of similar age.

With regard to my second hypothesis that the students would use information learned from the course to cope with their culture shock in some way, the answer can be found in the post-course evaluations. The average answer was between 3.75 and 4.33 in questions pertaining to using information gained from the course to get involved on campus, use campus resources, or recognize cultural differences and adapt to them. This means that, overall, students stated that it was true that they used information from the course to help. That finding, paired with the course being rated as effective in addressing culture shock, supports my second hypothesis, which is that students used course material to help them cope with their culture shock. Additionally, the ME students cited different course lessons that helped them with culture shock, such as understanding general differences in culture, such as time orientation and individualism.

Overall, there was significant thought and effort put into creating these three international student orientation sessions, and the students that participated had very complimentary comments pertaining to the course's helpfulness during their transitions into a new culture. However, our quantitative analyses are inconclusive because of the response rate and attendance.

### **Limitations**

**Qualtrics surveys.** The lack of consistent Qualtrics survey participation can be attributed to multiple reasons. First, students likely became overwhelmed or caught up

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with school and did not have the time to complete the surveys. There were a few surveys that were started but not completed, suggesting busyness as a problem.

Second, the control group had not taken the course before the surveys were sent out. Therefore, if they had not taken the time to read about the study, they would not have known about the purpose of the surveys unlike the BME students who were informed of this in person.

Third, the surveys were delivered to school email addresses rather than in person. As a Georgia Tech student, I receive seemingly random emails every day that are of little importance and do not spend much time glancing at them before they are deleted. Had the students received the surveys in person, they would have been much more likely to fill them out, just like the pre- and post-course surveys.

**Session Participation.** One possible reason many students registered for the course and did not come to the sessions could be because their schedules got busy or they forgot. This would make sense because the BME registration was sent out about a week before the course began and the ME was sent out over a month before, and the proportion of BME registration to attendance was much higher than that of the ME. Had there been more participation for these courses, we would have expected to see a stronger pattern in the Qualtrics results within the two groups. With a stronger and clearer pattern, a statistical analysis would have been possible, and we would expect to see a significant difference between groups.

### **Future Directions**

We have learned from this research that it is difficult to ask students to consistently and voluntarily participate in extracurricular classes and activities at an

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institution that is as academically demanding as Georgia Tech. Offering free lunch boosted online registration numbers, however many students did not show up to the first session, likely due to their schedules filling up. On the bright side, overall, the retention rate was high for the students that attended the first session, meaning that the students that attended the first session were most likely willing to attend the following two sessions. This means that the main goal for future courses needs to be getting the students to attend the first session.

If more courses are offered in the future, the content can be changed to address more of the needs found in the surveys. This would include focusing more on social interactions, extracurriculars, and specific ways to cope with culture shock. Through this research, the course was found to show promise in aiding international students struggling with culture shock. Further research needs to focus on obtaining more initial participation. In order to meet participation goals, this course would most likely need to count toward a credit hour or offer some other type of academic reward. This would allow for full attendance and survey participation to be required and therefore meet requirements for statistical significance.

Long-term effects of the course also need to be measured in a future study. It is possible that the students could feel some immediate relief from culture shock when the course evaluation was given to them at the end of the third session and then slowly fall back into their previous symptoms as they progressed through the semester.

### **Conclusion**

Looking back at the research, there are many positive findings to be shared. After interaction with the participating students and studying their in-class comments and



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survey answers, it is apparent that international students experience a fair amount of culture shock. While it affects some more than others, college institutions need to be proactive in continuing research and finding better solutions for this problem that can unfairly damage a student's full college experience. I hope this research will be continued at Georgia Tech in the future, and I look forward to seeing the result of the many modifications this institution is making to its educational system in hopes of increasing mental health and diversity throughout the student population.

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